

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

- 1 (Original): An exposure apparatus comprising:  
a projection optical system for projecting a pattern of a mask onto a substrate; and  
a fluid supply unit for supplying a fluid between said projection optical system and the substrate, said fluid supply unit including an injection unit for injecting carbon dioxide into the fluid.
- 2 (Original): An exposure apparatus according to claim 1, wherein said fluid supply unit includes a degassing unit for degassing the fluid, said degassing unit being located at an upstream side of the injection unit.
- 3(Previously Amended): An exposure apparatus according to claim 1, wherein said injection apparatus includes a membrane module for injecting the carbon dioxide.
- 4 (Previously Amended): An exposure apparatus according to claim 1, wherein the injection unit injects the carbon dioxide at a concentration of the carbon dioxide in the fluid between 0.02 ppm and 750 ppm.
- 5 (Original): An exposure apparatus according to claim 4, wherein the injection unit injects the carbon dioxide at the concentration of the carbon dioxide in the fluid between 0.06 ppm and 300 ppm.

6 (Previously Amended): An exposure apparatus according to claim 1, wherein the fluid supply unit includes a resistivity meter for measuring a resistivity value of the fluid, and the injection unit injects the carbon dioxide based on a measurement result of the resistivity meter.

7 (Previously Amended): An exposure apparatus according to claim 1, wherein the injection unit injects the carbon dioxide so that a resistivity value of the fluid is between  $0.02 \text{ M}\Omega\cdot\text{cm}$  and  $10 \text{ M}\Omega\cdot\text{cm}$ .

8 (Original): An exposure apparatus according to claim 7, wherein the injection unit injects the carbon dioxide so that the resistivity value of the fluid is between  $0.04 \text{ M}\Omega\cdot\text{cm}$  and  $5 \text{ M}\Omega\cdot\text{cm}$ .

9 (Currently Amended): An exposure apparatus comprising:  
an illumination optical system for illuminating a mask using light from a light source; and  
a projection optical system for projecting a pattern of the mask onto a substrate, wherein a concentration of carbon dioxide in a fluid supplied to a space between said projection optical system and the substrate is ~~has a concentration of carbon dioxide~~ between 0.02 ppm and 750 ppm.

10 (Currently Amended): An exposure apparatus according to claim 9, wherein ~~the injection unit injects the carbon dioxide at the~~ concentration of the carbon dioxide in the fluid is between 0.06 ppm and 300 ppm.

11 (Currently Amended): An exposure apparatus comprising:

an illumination optical system for illuminating a mask using light from a light source; and

a projection optical system for projecting a pattern of the mask onto a substrate, wherein a resistivity value of a fluid supplied to a space between said projection optical system and the substrate ~~is~~ has a resistivity value between  $0.02 \text{ M}\Omega\cdot\text{cm}$  and  $10 \text{ M}\Omega\cdot\text{cm}$ .

12 (Currently Amended): An exposure apparatus according to claim 11, wherein ~~the injection unit injects the carbon dioxide so that~~ the resistivity value is between  $0.04 \text{ M}\Omega\cdot\text{cm}$  and  $5 \text{ M}\Omega\cdot\text{cm}$ .

13(Previously Amended): A device manufacturing method comprising the steps of:  
exposing an object using an exposure apparatus according to claim 1 and  
developing the exposed object.

14-21 (Canceled):

22 (New): A device manufacturing method comprising the steps of:  
exposing an object using an exposure apparatus according to claim 9; and  
developing the exposed object.

23 (New): A device manufacturing method comprising the steps of:  
exposing an object using an exposure apparatus according to claim 11; and  
developing the exposed object.